

WHAT IS CLAIMED IS:

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1. A cooler pad frame for holding a pad element for evaporatively cooling a stream of air, the pad frame comprising:
 - an outer panel and an inner panel defining a pad space for holding the pad element;
 - the outer panel having at least one opening for allowing the stream of air to flow through the outer panel and into the pad element; and
 - the inner panel having a plurality of louvered openings including a louver projecting at a louver angle downward toward the bottom of the pad frame and inward toward the pad space for allowing the stream of air to flow out of the pad element and through the inner panel.
 2. The cooler pad frame of claim 1 wherein the louver angle is in a range from about 40 degrees to about 60 degrees.
 3. The cooler pad frame of claim 1 wherein the at least one outer panel opening is a louvered opening.
 4. The cooler pad frame of claim 3 wherein the at least one outer panel louvered opening includes a louver projecting at an angle toward the bottom of the pad frame and inward toward the pad space.
 5. The cooler pad frame of claim 4 wherein the outer panel louver angle and the inner panel louver angle are substantially equal.
 6. The cooler frame of claim 3 wherein the outer panel includes a plurality of louvered openings disposed in a pattern and the inner panel includes a plurality of

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louvered openings disposed in a pattern that corresponds with the pattern of the inner panel louvered openings.

7. An evaporative cooler comprising:

a cooler frame having an interior, an air inlet for allowing a stream of air to flow into the frame interior and an air outlet for delivering the stream of air from the interior of the frame;

a cooler pad frame mounted to the cooler frame for holding a pad element between the air inlet and the air outlet such that the stream of air flowing through the inlet passes through the pad, the cooler pad frame including an inner panel and an outer panel;

the inner panel having at least one louvered opening for allowing the stream of air to flow through the inner panel, the inner panel louvered opening including a louver projecting at an angle toward the bottom of the pad frame and inward toward the pad space; and the outer panel having at least one outer panel opening; and

an air movement system for drawing the stream of air through the pad element; and

a water distribution system for distributing water over the pad element.

8. The evaporative cooler of claim 7 wherein the inner panel louver angle is in a range from about 40 degrees to about 60 degrees.

9. The evaporative cooler of claim 7 wherein the at least one outer panel opening is a louvered opening.

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10. The evaporative cooler of claim 9 wherein the at least one outer panel louvered opening includes a louver projecting at an angle downward toward the bottom of the pad frame and inward toward the pad space.
11. The evaporative cooler of claim 10 wherein the outer panel louver angle and the inner panel louver angle are substantially equal.
12. The evaporative cooler of claim 9 wherein the outer panel includes a plurality of louvered openings disposed in a pattern and the inner panel includes a plurality of louvered openings disposed in a pattern that corresponds with the pattern of the inner panel louvered openings.
13. A cooler pad frame for an evaporative cooler, the pad frame comprising:
means for holding a pad element in an air stream flowing from an upstream position near an outer side of the pad element to a downstream position near an inner side of the pad element; and
an inner panel disposed at the downstream position, the inner panel having at least one louvered opening for allowing the air stream to flow through the inner panel.
14. The cooler pad frame of claim 13 wherein the at least one inner panel louvered opening includes a louver projecting at an angle toward the bottom of the pad element and inward toward the pad element.
15. The evaporative cooler of claim 14 wherein the inner panel louver angle is in a range from about 40 degrees to about 60 degrees.
16. A method for reducing entrainment in an evaporative cooler, the method comprising:

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disposing a pad element in an air stream flowing from an upstream position near an outer side of the pad element to a downstream position near an inner side of the pad element;

disposing an inner panel at the downstream position, the inner panel having at least one louvered opening for allowing the air stream to flow through the inner panel; and

distributing water over the pad element. The method of reducing entrainment according to claim 15 wherein the step of disposing an inner panel at the downstream position further comprises disposing an inner panel having a plurality of louvered openings having a louver projecting at an angle downward toward the bottom of the pad element and inward toward the pad element.

18. The cooler pad frame of claim 2 wherein the louver angle is about 45 degrees.
19. The evaporative cooler of claim 8 wherein the louver angle is about 45 degrees.
20. The evaporative cooler of claim 15 wherein the louver angle is about 45 degrees.